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REPORT  
PHASE II INVESTIGATION  
NORTH CENTRAL PROPERTY  
NORTHEAST CORNER BURKE STREET AND BEASOR DRIVE  
SANTA FE SPRINGS, CALIFORNIA  
FOR CATELLUS DEVELOPMENT CORPORATION  
DAMES & MOORE JOB NO. 14858-081-042

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OCTOBER 23, 1994



**DAMES & MOORE**

LOS ANGELES, CALIFORNIA

GROUNDWATER ELEVATIONS, CATELLUS PROPERTY, SANTA FE SPRINGS, CA

| WELL NO. | WELL ELEV. | DEPTH TO GW | GW ELEVATION |
|----------|------------|-------------|--------------|
| MW-1     | 143.75     | 21.57       | 122.18       |
| GW-2     | 148.02     | 25.82       | 122.2        |
| GW-3     | 145.40     | 23.67       | 121.73       |
| GW-4     | 147.52     | 24.17       | 123.35       |
| GW-5     | 147.43     | 24.20       | 123.23       |
| GW-6     | 145.93     | 22.81       | 123.12       |
| GW-8     | 146.55     | 23.94       | 122.61       |
| GW-9     | 148.01     | 24.47       | 123.54       |
| GW-11    | 147.32     | 24.65       | 122.67       |
| GW-12    | 149.85     | 26.98       | 122.87       |
| GW-13    | 147.27     | 25.38       | 121.89       |
| GW-14    | 147.68     | 25.64       | 122.04       |

Measurement made October 21, 1994

The eastern portion of a third building (Building B) was located along the western border of the Site. The building was reported to be used for storage of uniforms and maintenance equipment. On the Site, east of Building B was a pad mounted utility transformer. Operations ceased and these structures were removed in 1988. No other onsite activities which could have adversely impacted site soils are known to have occurred.

*Historical figure shows: 1 - 550 Gal White Oil Spill  
2 - Hydraulic fluid  
in vicinity of Bldg K*

## 2.0 PRIOR INVESTIGATION

Previous data exists that indicates that former Site activities have not impacted onsite soils and groundwater. Two borings (BH-13 and BH-14) performed by Converse Environmental West (Converse) (June 1989) were located at the north end of former Building K. A third boring, BH-10, was located at the southwest corner of the Site. Soils sampled from these borings were analyzed for total petroleum hydrocarbons (TPH). TPH was not reported in any of the samples. Converse also performed a soil vapor survey in which nine randomly located soil vapor samples were collected from depths of 4.5 feet below ground surface and analyzed for total volatile compounds (December 1990). No total volatile compounds were detected. Borings C-1 and C-2 performed by McLaren Environmental Engineering (May 1988) were located at the north end of former Building L. Analysis of soil samples from these two borings indicated that TPH was not reported.

*but data not  
3015 NAD  
calibrated  
proper*

## 3.0 PURPOSE AND SCOPE OF PHASE II INVESTIGATION

The purpose of the Phase II Investigation program described herein was to evaluate the current onsite soil conditions and to evaluate current groundwater conditions. This investigation was intended to evaluate whether previous or current onsite activities have adversely impacted onsite soils and to provide information about groundwater conditions. Boring locations were chosen for two purposes: (1) to evaluate random areas of the Site and (2) to evaluate specific areas such

as the former transformer and the former service buildings. To accomplish these objectives, Dames & Moore performed the tasks described below.

- Contacted Underground Services Alert (USA) to help establish the approximate location of subsurface utilities within the boring areas;
- Updated the site specific Health and Safety Plan to address the potential risks associated with conducting subsurface explorations in areas of potential soil contamination;
- Drilled, logged, and sampled four borings using hollow-stem auger drilling techniques.
- Abandoned monitoring well MW-11 and reinstalled MW-11 at a location approximately 100 feet east within the paved parking lot.
- Sampled several existing onsite and offsite groundwater monitoring wells to evaluate groundwater conditions. Monitoring wells MW-1, GW-2, GW-3, GW-4, GW-5, GW-6, GW-8, GW-9, GW-11, GW-12, GW-13, and GW-14 were sampled.
- Logged boreholes and classified onsite soils following the Unified Soil Classification System (USCS).
- Analyzed 12 soil samples for total petroleum hydrocarbons (TPH) using EPA Method 8015, and volatile organic compounds (VOCs) using EPA Method 8010/8020. A soil sample collected from a depth of approximately 2 feet in the vicinity of the former transformer (DM-3) was analyzed for polychlorinated biphenyls (PCBs) using EPA Method 8080. Twelve groundwater samples and 1 trip blank were also analyzed for halogenated VOCs using EPA Method 8010.

## 4.2 MONITORING WELL INSTALLATION

Monitoring well MW-11 was abandoned on August 9, 1994 in accordance with guidelines established by the California Department of Water Resources. The top of the well was damaged and not repairable. The well was reinstalled at a location approximately 100 feet east within the paved parking area (Figure 2). Groundwater was encountered at approximately 22 feet bgs; about ten feet higher than anticipated. The monitoring wells was constructed of four-inch diameter, schedule 40 PVC casing and well screen installed through the hollow stem of the augers and completed in locking stand pipes. The well was constructed of 20 feet of flush threaded solid PVC casing and 15 feet of flush threaded PVC screen. The screen was machine slotted with 0.020-inch horizontal slots and extended from approximately 20 feet to 35 feet bgs.

A filter pack of medium sand was placed around the screen from the bottom of the borehole to approximately 2 feet above the screened interval. Dames & Moore's experience with soils and monitoring wells at similar sites in the Los Angeles Basin as well as the previous monitoring wells installed onsite have shown that the use of the No. 3 sand for the filter pack and 0.020-inch slotted screen are appropriate for monitoring well construction at the site.

An approximately 2-foot thick subsurface seal of bentonite pellets was placed above the gravel pack and hydrated using tap water. The well was sealed to approximately surface grade with a cement/bentonite grout. A locking, flush mounted steel road box was anchored in concrete to protect the PVC well.

Monitoring well MW-11 was allowed to stabilize for at least 24 hours prior to being developed. The well was developed by surging and bailing until: (1) the produced water was relatively clear of sediment larger in size than very fine sand; (2) the pH, temperature and conductivity of the produced water had relatively stabilized; and (3) a minimum of three well casing volumes have

been removed from wells that recharge slowly of a minimum of six casing volumes from wells that recharge more rapidly. Approximately 100 gallons of water were removed from the well during development. Well development tools were steam cleaned prior to use.

Groundwater produced during well development and pre-sample purging, was placed in DOT-approved 55-gallon drums and left onsite. Upon receipt of chemical test results, the groundwater will be appropriately disposed.

#### 4.3 GROUNDWATER SAMPLING

Groundwater produced during pre-sample purging, was placed in DOT-approved 55-gallon drums and left onsite. Upon receipt of chemical test results, the groundwater will be appropriately disposed.

Static water level was measured in each monitoring well using an electric water level indicator. Measurements were obtained, recorded, and repeated until reproducible results were achieved. Water level data was recorded to the nearest 0.01 foot. Before and after each use, the measurement device was washed in a non-phosphate detergent solution and thoroughly rinsed in deionized water.

On October 21, 1994, wells MW-1, GW-2, GW-3, GW-4, GW-5, GW-6, GW-8, GW-9, GW-11, GW-12, GW-13, and GW-14 were purged and sampled. Each well was purged of approximately three casing volumes of groundwater using a downhole pump. During purging, the water temperature, conductivity, and pH were monitored periodically and recorded. The downhole pump was decontaminated between each well by pumping a phosphate-free detergent and tap water through it several times. Once the wells had recharged, they were sampled using dedicated bottom-opening, precleaned bailers. Groundwater samples were collected into 40 milliliter vials

TABLE 1

## LABORATORY DATA - SOILS - NORTH CENTRAL PROPERTY

## TOTAL PETROLEUM HYDROCARBONS AND VOLATILE ORGANIC COMPOUNDS

| BORING | SAMPLE NO.<br>AND DEPTH<br>feet | TPH<br>mg/Kg | VOLATILE<br>ORGANIC<br>COMPOUNDS<br>$\mu\text{g/kg}$ |
|--------|---------------------------------|--------------|--|
| DM-1   | 1-5                             | ND           | ND   |
| DM-1   | 3-15                            | ND           | ND   |
| DM-1   | 5-25                            | ND           | ND   |
| DM-2   | 1-5                             | ND           | ND   |
| DM-2   | 3-15                            | ND           | ND   |
| DM-2   | 5-25                            | ND           | ND   |
| DM-3   | 2-5                             | ND           | ND   |
| DM-3   | 4-15                            | ND           | ND   |
| DM-3   | 6-25                            | ND           | ND   |
| DM-4   | 1-5                             | ND           | ND   |
| DM-4   | 3-15                            | ND           | ND   |
| DM-4   | 5-25                            | ND           | ND   |

 $\mu\text{g/kg}$  micrograms per kilogram

mg/Kg milligrams per kilogram

ND not detected

Samples analyzed using EPA Methods 8010/8020 and 8015

methylene chloride reported as a laboratory contaminant

TABLE 2

**LABORATORY DATA - GROUNDWATER - CATELLUS PROPERTY  
VOLATILE ORGANIC COMPOUNDS (µg/L)**

| COMPOUNDS              | North    | Central  | Multi    | North    | Central  | MCL  |          |          |
|------------------------|----------|----------|----------|----------|----------|------|----------|----------|
|                        | M<br>W-1 | GW-<br>2 | GW-<br>3 | GW-<br>4 | GW-<br>5 |      | GW-<br>6 | GW-<br>8 |
| chloroform             | 0.8      | 1.5      | 1.0      | ND       | ND       | ND   | 1.4      | NA       |
| 1,1 dichloroethane     | ND       | ND       | ND       | ND       | ND       | ND   | ND       | 0.5      |
| 1,2 dichloroethane     | ND       | ND       | ND       | ND       | ND       | ND   | ND       | 5        |
| 1,1 dichloroethene     | 36       | 36       | 6.8      | ND       | 8.7      | 5.7  | ND       | 6        |
| 1,2 dichloroethene     | 2.3      | 2.8      | ND       | ND       | 1.0      | 55.6 | 1.6      | 5        |
| tetrachloroethene      | 94       | 100      | 35       | 1.8      | 30       | 130  | 9.0      | 5        |
| methylene chloride     | 1.7      | 1.5      | 1.2      | 1.6      | 1.9      | 1.4  | 1.5      | 40       |
| freon 113              | 170      | 170      | 15       | 0.5      | 34       | 16   | ND       | 1200     |
| trichloroethene        | 140      | 180      | 49       | ND       | 53       | 35   | 6.3      | 5        |
| trichlorofluoromethane | 62       | 73       | 7.4      | ND       | 13       | 9.1  | ND       | 150      |

µg/L micrograms per liter

Samples analyzed using EPA Method 8010

MCL maximum contaminant level in drinking water (California)

NA chloroform does not have a MCL

ND not identified above analytical limit of detection

Samples Collected October 21, 1994

PCE  
Freon 113  
TCE  
Freon 11  
*[Signature]*

Slauson Avenue

GW-5 Inaccessible

Slauson Avenue

Multitenant Property

Beasor Drive

North Central Property

GW-12

GW-11

Burke Street

MW-1

GW-2

GW-8

Central Property

GW-7

GW-3



## North Central Property

BEASOR DRIVE AND  
BURKE STREET  
Santa Fe Springs, California

For Catellus Development Corporation

FIGURE 1

### EXPLANATION

MW-8  
GW-12



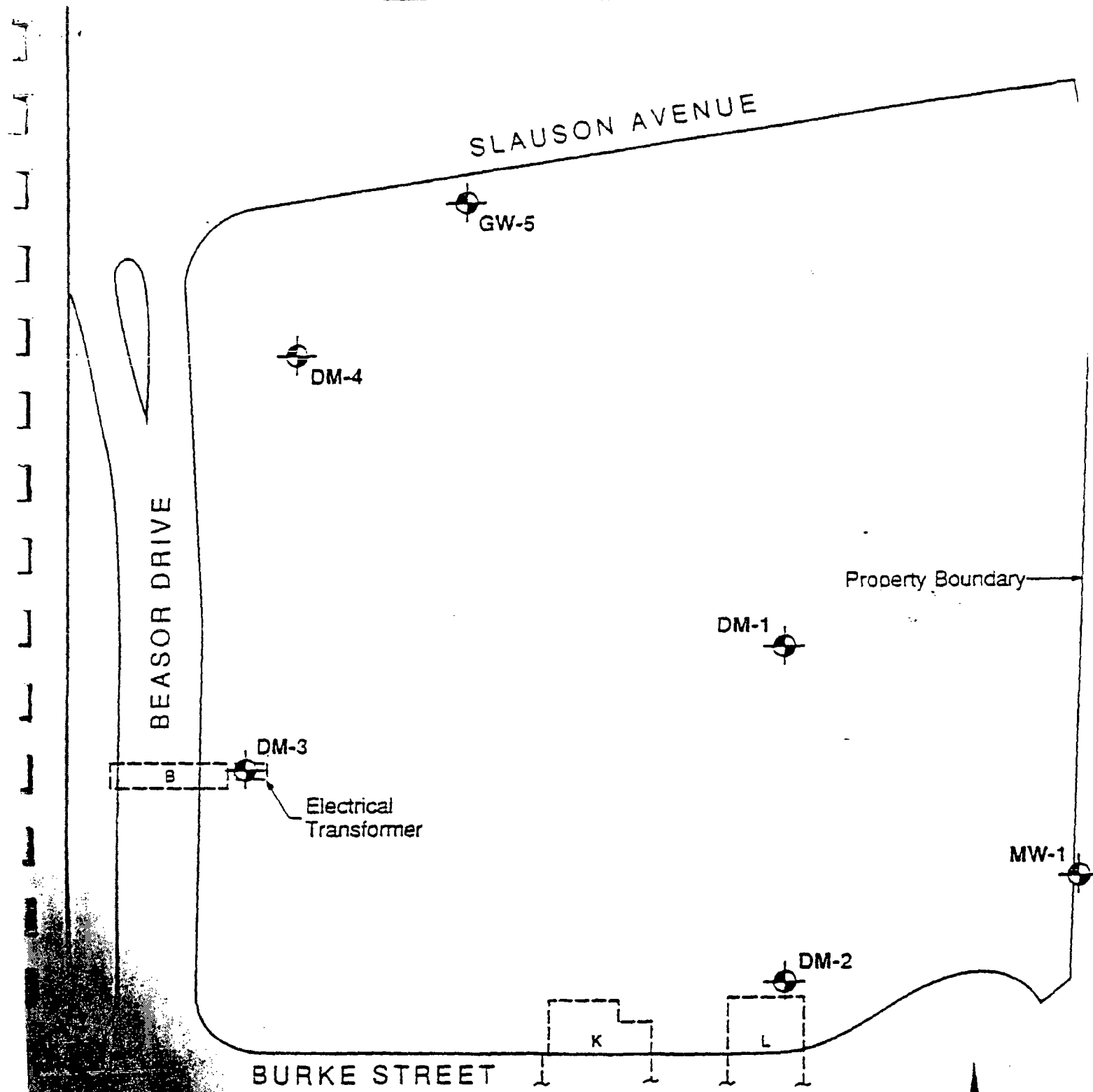
Monitoring Well Location  
and Designation



0 225



Approximate  
Scale in Feet



**PLOT PLAN**  
SAMPLING LOCATIONS  
North Central Property  
Santa Fe Springs, California

For Catellus Development Corporation

NOT TO SCALE

Dames & Moore